

What the SHO saw

ABSTRACT—As discussions about junior doctors' training and duty hours continue, we have looked at the actual 'on take' case load and case mix of a medical senior house officer (SHO) in a district general hospital (DGH) over a six-month period. In our DGH, on a one in four rota, exposure to a few common conditions is high and exceeds the minimum requirements for a post to be approved for general professional training. Limited but useful experience may also be gained in the management of many other conditions. The benefits in terms of structured training and lifestyle resulting from the implementation of the Calman report and the junior doctors' hours initiative need to be set against a possible reduction in patient exposure and in the associated opportunities to learn that may occur with a decrease in SHOs' 'front line' exposure.

The Calman report [1] is to be implemented. This will mean fewer hours of duty for junior doctors [2,3]. How will this affect junior doctors' training [4,5]? There is now general agreement that it is no longer acceptable (if it ever was) for senior house officer (SHO) posts to be 'unsupervised work with moments snatched with books and journals' [6].

Pending full implementation of the proposals, training remains dependent on time spent in approved posts. General professional training in general (internal) medicine normally takes two years in appropriate SHO posts, of which not less than one year should be spent in posts in acute general medicine [7]. These time requirements are probably arbitrary, and the experience and exposure to acute general medicine provided by such posts have never been clearly profiled 'at the coal face'.

Case load can easily be measured; learning to manage patients cannot take place without exposure to them [8]. Learning itself is much more difficult to assess; it is variable and depends very much on the initiative and ability of the individual junior doctor, the support and teaching given by senior colleagues and

the quality of the time available for private study. A measure of case load is valuable as a crude proxy for the learning possibilities of a post and gives a baseline against which to judge improvements brought about by the initiatives on training and duty hours.

Methods

The study was carried out at Kingston Hospital, a district general hospital (DGH) with 120 acute medical and geriatric beds serving a relatively prosperous, older than average population of approximately 220,000 in South West London.

All patients were assessed in the accident and emergency department (A&E) by a medical SHO working a straight one in four 'on take' rota during a six months' attachment to one of the four general medical firms at the hospital. Patients were referred either by their general practitioner (GP) or after assessment by A&E staff. No separate arrangements were made for acutely ill elderly patients; patients dead on arrival were excluded from the study. Age, main presenting symptom and primary diagnosis or diagnostic group were determined by the SHO and subsequently confirmed by senior colleagues.

Results

On the 42 duty days, 583 patients were assessed and classified by presenting complaint and agreed diagnosis (Table 1). A mean of 14 patients as seen on each duty day (range 8–22 on weekdays, 31–53 over a three-day weekend). Following assessment, 115 (19.7%) of the 583 patients were discharged directly from A&E and 468 (80.3%) admitted to hospital (an average of 11 per day); between them, they had 88 different conditions. The patients' average age was 59 years (range 16–98), 287 (49.2%) were aged 65 or more, and 260 (44.6%) were women.

The two commonest presenting complaints were chest pain (140 patients, 24.0%) and dyspnoea (108 patients, 18.5%). Twelve presenting complaints accounted for 82.0% of the workload. Of the 140 patients with chest pain, 85 (60.7%) had ischaemic heart disease as their agreed diagnosis. Of the 108 with dyspnoea, 35 (32.4%) had respiratory infections and a further 48 (44.4%) had asthma or chronic airflow limitation. By diagnostic category, 196 (33.6%) patients had one of the top five diagnoses, namely, angina, respiratory infection, myocardial infarction, stroke or gastrointestinal haemorrhage. Nine diagnoses covered more than 50% (299) of all patients.

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Table 1. Complete listing of cases assessed by agreed diagnosis.

Diagnosis/treatment category	Cases assessed	Cumulative case load	Percentage of total	Cumulative percentage
Angina	51	51	8.75	9
Respiratory infection	48	99	8.23	17
Myocardial infarction	34	133	5.83	23
Cerebrovascular accident	32	165	5.49	28
Gastrointestinal haemorrhage	31	196	5.32	34
Deliberate self harm	28	224	4.80	38
Heart failure	27	251	4.63	43
Asthma	24	275	4.12	47
Chronic airflow limitation	24	299	4.12	51
Dysrhythmias	24	323	4.12	55
Chest pain—other	22	345	3.77	59
Dyspeptic disease	16	361	2.74	62
Seizures	16	377	2.74	65
'Social' problems	13	390	2.23	67
Urinary tract infection/pyelonephritis	13	403	2.23	69
Cellulitis	12	415	2.06	71
Gastroenteritis	12	427	2.06	73
Deep vein thrombosis	7	434	1.20	74
Hyperglycaemia/ketoacidosis	7	441	1.20	76
Malignancy—other	7	448	1.20	77
Neurology—other	7	455	1.20	78
Carcinoma of the lung	6	461	1.03	79
Headaches—other	6	467	1.03	80
Hypoglycaemia	6	473	1.03	81
Pulmonary embolism	6	479	1.03	82
Collapse—other	4	483	0.69	83
Infection—other	4	487	0.69	84
Pneumothorax	4	491	0.69	84
Renal failure	4	495	0.69	85
Swollen leg—other	4	499	0.69	86
Alcohol withdrawal	3	502	0.51	86
Bell's palsy	3	505	0.51	87
Chest pain—musculoskeletal	3	508	0.51	87
Cirrhosis/liver failure	3	511	0.51	88
Infection—other viral	3	514	0.51	88
Meningitis	3	517	0.51	89
Alcoholic hepatitis	2	519	0.34	89
Anaphylaxis	2	521	0.34	89
Carbon monoxide poisoning	2	523	0.34	90
Cholecystitis	2	525	0.34	90
Diabetes—other	2	527	0.34	90
Diabetic feet problems	2	529	0.34	91
Fibrosing lung disease	2	531	0.34	91
Iron deficiency anaemia	2	533	0.34	91

Discussion

The management of acutely ill patients is considered to be an important part of the training of junior doctors in general medicine [7]. Over a six-month appointment one SHO had ample exposure to common medical problems. Chest pain or dyspnoea was the presenting symptom in 42.5% of patients and 33.6% were diagnosed as having ischaemic heart disease, a respiratory infection, a cerebrovascular accident or gastrointestinal haemorrhage. Other impor-

tant medical conditions such as diabetic coma, pulmonary embolus, pneumothorax and inflammatory bowel disease were less common, but provided useful experience.

To be approved for general professional training, posts must include an on-call rota of at least one day in seven with not less than five admissions each 'take' day [7]. With a one in four rota and an average of 11 admissions a day, the Kingston SHO post exceeded

Table 1. *Continued*

Diagnosis/treatment category	Cases assessed	Cumulative case load	Percentage of total	Cumulative percentage
Parkinson's disease	2	535	0.34	92
Pericarditis	2	537	0.34	92
Pyrexia of unknown origin	2	539	0.34	92
Smoke inhalation	2	541	0.34	93
Thrombophlebitis	2	543	0.34	93
Vasovagal attack	2	545	0.34	93
Anaemia—other	1	546	0.17	94
Baker's cyst	1	547	0.17	94
Cerebellar disease	1	548	0.17	94
Cervical spondylosis	1	549	0.17	94
Chronic lymphoid leukaemia	1	550	0.17	94
Dissecting thoracic aortic aneurysm	1	551	0.17	95
Dysfibrinogenaemia	1	552	0.17	95
Dystrophia myotonica	1	553	0.17	95
Eczema	1	554	0.17	95
Femoral embolus	1	555	0.17	95
Fractured ribs	1	556	0.17	95
Friedreich's ataxia	1	557	0.17	96
Haematuria	1	558	0.17	96
Haemolytic anaemia	1	559	0.17	96
Hepatosplenomegaly	1	560	0.17	96
Herpes zoster ophthalmocorum	1	561	0.17	96
Hyperventilation	1	562	0.17	96
Idiopathic thrombocytopenia purpura	1	563	0.17	97
Infectious hepatitis	1	564	0.17	97
Inflammatory bowel disease	1	565	0.17	97
Internuclear ophthalmoplegia	1	566	0.17	97
Ischaemic toe	1	567	0.17	97
Jaundice—other	1	568	0.17	97
Mastitis	1	569	0.17	98
Migraine	1	570	0.17	98
Myelodysplasia	1	571	0.17	98
Myxoedema coma	1	572	0.17	98
Pancreatitis	1	573	0.17	98
Pleural effusion of uncertain cause	1	574	0.17	98
Proptosis	1	575	0.17	99
Proximal myopathy	1	576	0.17	99
Psychosis	1	577	0.17	99
Salmonella septicaemia	1	578	0.17	99
Stevens-Johnson syndrome	1	579	0.17	99
Subdural haematoma	1	580	0.17	99
Syndrome of inappropriate antidiuretic hormone secretion	1	581	0.17	100
Urinary retention	1	582	0.17	100
Venous insufficiency	1	583	0.17	100

minimum recommendations by roughly fourfold. A further three patients each 'take' day were assessed in and discharged straight from A&E, a factor not considered in the Royal College of Physicians (RCP) guidelines. If all patients over 65 years old were managed by a separate on-call team for medicine for the elderly, the number of patients seen by the medical SHO would still be adequate for SHO training.

Since the breadth of acute general medical conditions seen frequently in a DGH appears to be relatively

limited, exposure to other medical conditions may need to be gained by rotation through specialist units. This is implicit in the RCP guide for general professional training [7] but is not compulsory, in contrast to the regulations for surgeons in training [9].

There are limitations in a survey such as this, which is a survey of one person's experience in one hospital. Population size and demographics may affect the results. The experience and competence of the casualty officers and GPs in screening patients are other vari-

ables for which we do not pretend to have adjusted. The proximity of the hospital to a major teaching centre, St George's Hospital, may also have had some influence in skewing the picture. (However, junior doctors who work in internal medicine at Kingston say that the hospital is at least as busy and the exposure as broad as they have experienced in other jobs. Our own experience elsewhere supports this view.)

The opportunity to learn how to manage common conditions is clearly high in the DGH setting, but may not be sufficient in itself to offer the broad introduction to general medicine that general professional training intends and which is essential if junior doctors are to make an informed selection of higher specialist training programmes and career paths. Exposure to only one patient with a given condition may not stimulate the learning process in a way that repeated exposure is likely to do—but to manage even one patient with a specific condition is better than none, which may occur in the future when medical SHOs are less frequently 'on take' in A&E.

As new working patterns evolve and the service becomes 'consultant led' [10], it will be interesting to review the case load of future SHOs to assess how the learning possibilities are changing.

References

- 1 Report of the working group on specialist medical training. *Hospital doctors: training for the future*. London: Department of Health, 1993.
- 2 Department of Health. *Report of the ministerial group on junior doctors' hours*. London: DoH, December 1990.
- 3 National Health Service Management Executive. *Junior doctors—the new deal*. London: Department of Health, 1993.
- 4 Beecham L. Specialist training may be overhauled. *Br Med J* 1993;**306**:1287–8.
- 5 Morrison JFJ. Senior house officer training in medicine—summary of results of a survey by the standing committee of members of the Royal College of Physicians. *J Roy Coll Physicians Lond* 1991;**25**:293–4.
- 6 Hunter S, McLaren P. Specialist medical training and the Calman report. *Br Med J* 1993;**306**: 1281–2.
- 7 Royal College of Physicians of London. *General professional training—the Royal College of Physicians guide for trainees and trainers*. London: RCP, February 1994.
- 8 Report by the Education Committee of the Royal College of Physicians of London. *Education and training for senior house officers*. London: RCP, April 1992.
- 9 Royal College of Surgeons of England. *Regulations for the fellowship examination of the Royal Colleges of Surgeons*. London: RCS, October 1990.
- 10 Charlton B. Service implications of the Calman report. *Br Med J* 1993;**307**:338–9.

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